**LESSON #3**

Class: Biology

Unit: The Cell

Topic: The microscope: “Hey where are you?” “Oh, there you are!”

**Instructional Objectives: Students will be able to…**

1.) Describe how the light microscope works.

2.) Label the parts of a light microscope

3.) Explain the function of the various parts of the light microscope.

4.) Construct a rudimentary functional microscope.

**Time Activity**

9:00 – 9:40 The classroom will be divided into 5 stations, each containing a different activity related to the microscope. The class will be split into 5 groups. Each group will have 8 min at each station.

**Station 1:** Video on the microscope. They will then navigate a pre- selected website on the microscope. At this station they will be required to take notes and provide drawings.

* Video: <http://www.youtube.com/watch?v=77J4i3uyna0>
* Website: <http://www.southwestschools.org/juniorschool/jsfaculty/Microscopes/compoundscope.html>

**Station 2:** This station will instruct the students on how to prepare a wet and a dry mount. Each student will create one of each; they will a variety of choices for their mounts.

**Station 3:** This station will allow the students to construct a rudimentary working microscope. There will be a video instruction and the supplies will be provided.

**Station 4:**  Will have an actual microscope that they will be using in class. The different parts will be lettered and the students will have to identify the parts of the microscope.

**Station 5:** At this station the students will get to view their wet and dry mounts. They will draw what they see through the microscope at each of the different magnifications. Each picture will have to be labeled with the magnification used.

9:40 – 9:45 Students will use this time to visit any station they failed to complete. All work is then to be handed in.

**Assignment:**

1.) Completed diagram of microscope.

2.) The microscopes they made.

3.) Their wet and dry mounts.

4.) Notes and drawings they took on the video and from the website.

5.) The drawings they made from viewing their wet/dry mounts with proper magnifications labeled.

**Activity Materials:**

1.) 4 Laptops

2.) 2 Compound light microscopes

3.) 25 Blank diagrams of microscope

4.) 25 plastic soda bottles (500mL), with holes already in the caps.

5.) Glass beads

6.) 4 Scissors

7.) 4 Tweezers

8.) 4 Pens

9.) Tape

10.) Onion

11.) 50 Slides

12.) 50 cover slips

13.) Cloth, cotton, leaves, pond water, etc for making slides.

14.) Crayons, white paper

**Resources for Lesson:**

1.) Video clips (microscope/how to make a microscope)

2.) Website